

REMARKS

No claim has been amended, however, all claims have been reproduced in for Examiner's convenience. Claims 1-6 and 10-22 are pending.

In the Final Office Action, the Examiner withdrew the rejection of claims 1-7, 9, 11, 14-15, and 16-20 under 35 U.S.C. §103(a) as being unpatentable over the Admitted Prior Art (APA) in view of U.S. Patent No. 4,847,754 (*Obermarck*). However, the Examiner has rejected claims 1-4, 10, 11, 16-18, 21 and 22 under 35 U.S.C. §103(a) as being unpatentable over the Admitted Prior Art (APA) in view of AIX Version 4.3 Communications Programming Concepts ("*AIX*"). This rejection is fully traversed below.

In making this rejection, the Examiner has asserted that *AIX* teaches in stream synchronization, a multi-threaded environment, where several threads may access the same stream, same module, or the same queue at the same time (Final Office Action, page 2, discussion of claim 1). It is noted that *AIX* states that in a multi-threaded environment, several threads may access the same stream, the same module, or even the same queue at the same time (*AIX*, Page 1). However, it is respectfully submitted that this knowledge in itself does not teach or suggest propagating a first message to or from a first synchronization queue while allowing a second thread to propagate a second message between two software modules in context of the invention.

The Examiner seems to be asserting that the fact that several threads may access the same stream, module, or queue at the same time is sufficient to render obvious: propagating a first message to or from a first synchronization queue while allowing a second thread to propagate a second message between two software modules. In doing so, rather than relying on factual evidence that teaches or suggests this feature, the Examiner has merely relied on abstract knowledge that in multi-threaded environments multiple threads may attempt to access the same resource. Accordingly, it is respectfully submitted that the Examiner has not made a prima facie case of obviousness.

Moreover, contrary to the Examiner's assertion, *AIX* does not teach ensuring data consistency when two different threads access data in the context of the invention. *AIX* states that in a multi-threaded environment, several threads may access the same stream, the same module, or even the same queue at the same time. (*C*, Page 1). *AIX* further suggests that "in order to protect the Streams resources (queues and other

specific data), Streams provides per-thread resource synchronization." (*A/X*, Page 1) In other words, *A/X* teaches that in order to ensure data integrity, a conventional synchronization queue can be implemented where if a resource is already held by another thread, the thread puts a request on the resource's synchronization queue. As noted in the specification, in the conventional models, access to the synchronization queue associated with a software module is limited to one thread at a time (Specification, page 3, lines 9-23). Thus, *A/X* merely identifies the framework for implementing conventional synchronization queues in Streams environment where access to the synchronization queue associated with a software module is limited to one thread at a time.

Accordingly, it is respectfully submitted that the neither the Admitted Prior Art, nor *A/X* teach propagating a first message to or from a synchronization queue associated with a software module while a second message is propagated between the software modules. Claim 1, among other things, recites this feature. Accordingly, it is respectfully submitted that claim 1 is patentable over the Admitted Prior Art and *A/X*, taken alone, or in any proper combination. In addition, claims that are dependent on claim 1 are patentable for at least this reason. Moreover these dependent claims recite additional features that render them patentable for additional reasons.

Furthermore, it is respectfully submitted that independent claims 11 and 17 recite similar features as those recited in claim 1. For example, claim 11, among other things, recites a propagation controller operating to enable at least two processors of the plurality of processors to concurrently propagate messages to or from an auxiliary queue of a second software module. Claim 17, among other things, recites computer program code for propagating a first message to or from a first synchronization queue while allowing the second thread to propagate a second message between the two software modules. Accordingly, it is respectfully submitted that claims 11 and 17 and their dependent claims are patentable over the Admitted Prior Art and *A/X*, taken alone, or in any proper combination. Thus, it is respectfully requested that the Examiner withdraw all rejections under 35 U.S.C. §103(a).

Based on the foregoing, it is submitted that claims 1-6 and 10-22 are patentably distinct over the cited art of record. Additional limitations recited in the independent claims or the dependent claims are not further discussed, as the limitations discussed

above are sufficient to distinguish the claimed invention from the cited art. Accordingly, it is respectfully requested that the Examiner withdraw all the rejections.

Applicant believes that all pending claims are allowable and respectfully requests a Notice of Allowance for this application from the Examiner. Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at the telephone number set out below.

If there are any issues remaining which the Examiner believes could be resolved through either a Supplemental Response or an Examiner's Amendment, the Examiner is respectfully requested to contact the undersigned attorney at the telephone number listed below.

Applicants hereby petition for an extension of time which may be required to maintain the pendency of this case, and any required fee for such extension or any further fee required in connection with the filing of this Amendment is to be charged to Deposit Account No. 500388 (Order No. SUN1P398).

Respectfully submitted,
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